

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-32. (cancelled)

33. (Currently Amended) A method of providing a transition region in a guide catheter, the guide catheter including an inner layer and an outer layer, the guide catheter having a distal region, a proximal region and an intervening transition region, the method comprising steps of:

removing a portion of the outer layer such that the inner layer remains where the outer layer was removed; and

replacing the removed portion of the outer layer with a different polymer to form the transition region;

wherein the transition region has a flex modulus that is different from that of the distal region and the proximal region.

34. (Withdrawn) The method of claim 33, wherein removing a portion of the outer layer comprises removing a band of material.

35. (Previously Presented) The method of claim 33, wherein removing a portion of the outer layer comprises forming one or more annular grooves.

36. (Withdrawn) The method of claim 33, wherein removing a portion of the outer layer comprises forming one or more longitudinal grooves.

37. (Withdrawn) The method of claim 33, wherein replacing the removed material further comprises forming an atraumatic tip with the different polymer.

38. (Previously Presented) The method of claim 33, wherein the different polymer has a lower flex modulus than the material removed.

39. (Previously Presented) The method of claim 33, wherein the different polymer has a higher flex modulus than the material removed.

40. (Currently Amended) A method of forming an intravascular catheter, the method comprising:

providing an elongate shaft including an inner layer comprising a first polymer material and an outer layer comprising a second polymer material disposed over the inner layer, the elongate shaft having a proximal region, a distal region and ~~an intermediate a~~ a region located ~~intermediate between~~ between the proximal region and the distal region;

removing a portion of the outer layer between the proximal region and the distal region ~~in the intermediate region~~ of the elongate shaft to impart the elongate shaft with a transition zone having a flexibility different from the proximal region and the distal region of the elongate shaft.

41. (Currently Amended) The method of claim 40, wherein during the step of removing a portion of the outer layer between the proximal region and the distal region ~~in the intermediate region~~, one or more annular grooves are formed in the elongate shaft.

42. (Previously Presented) The method of claim 41, further comprising the step of filling the annular grooves with a third polymer material different from the second polymer material.

43. (Previously Presented) The method of claim 42, wherein the second polymer material has a durometer and the third polymer material has a durometer greater than the durometer of the second polymer material.

44. (Previously Presented) The method of claim 42, wherein the second polymer material has a durometer and the third polymer material has a durometer less than the durometer of the second polymer material.

45. (Previously Presented) The method of claim 40, further comprising the step of replacing the removed portion of the outer layer with a third polymer material different from the second polymer material.

46. (Previously Presented) The method of claim 45, wherein the second polymer material has a durometer and the third polymer material has a durometer greater than the durometer of the second polymer material.

47. (Previously Presented) The method of claim 45, wherein the second polymer material has a durometer and the third polymer material has a durometer less than the durometer of the second polymer material.

48. (Currently Amended) The method of claim 40, wherein the elongate shaft includes a support member located between the inner layer and the outer layer, wherein the step of removing a portion of the outer layer between the proximal region and the distal region ~~in the intermediate region~~ of the elongate shaft exposes the support member.